

## SEQUENCE LISTING

<110> GENVEC, INC.  
BROUGH, DOUGLAS E

<120> MATERIALS AND METHODS FOR TREATING DISORDERS OF THE EAR

<130> 226325

<150> US 10/373,249

<151> 2003-02-24

<160> 7

<170> PatentIn version 3.2

<210> 1

<211> 351

<212> PRT

<213> Mus musculus

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Gly Asp His His Arg His Pro Gln Pro His His Val Pro Pro Leu Thr  
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Pro Gln Pro Pro Ala Thr Leu Gln Ala Arg Asp Leu Pro Val Tyr Pro  
35 40 45

Ala Glu Leu Ser Leu Leu Asp Ser Thr Asp Pro Arg Ala Trp Leu Thr  
50 55 60

Pro Thr Leu Gln Gly Leu Cys Thr Ala Arg Ala Ala Gln Tyr Leu Leu  
65 70 75 80

His Ser Pro Glu Leu Gly Ala Ser Glu Ala Ala Ala Pro Arg Asp Glu  
85 90 95

Ala Asp Ser Gln Gly Glu Leu Val Arg Arg Ser Gly Cys Gly Gly Leu  
100 105 110

Ser Lys Ser Pro Gly Pro Val Lys Val Arg Glu Gln Leu Cys Lys Leu  
115 120 125

Lys Gly Gly Val Val Val Asp Glu Leu Gly Cys Ser Arg Gln Arg Ala  
130 135 140

Pro Ser Ser Lys Gln Val Asn Gly Val Gln Lys Gln Arg Arg Leu Ala  
145 150 155 160

Ala Asn Ala Arg Glu Arg Arg Arg Met His Gly Leu Asn His Ala Phe  
165 170 175

Asp Gln Leu Arg Asn Val Ile Pro Ser Phe Asn Asn Asp Lys Lys Leu  
 180 185 190

Ser Lys Tyr Glu Thr Leu Gln Met Ala Gln Ile Tyr Ile Asn Ala Leu  
 195 200 205

Ser Glu Leu Leu Gln Thr Pro Asn Val Gly Glu Gln Pro Pro Pro Pro  
 210 215 220

Thr Ala Ser Cys Lys Asn Asp His His His Leu Arg Thr Ala Ser Ser  
 225 230 235 240

Tyr Glu Gly Gly Ala Gly Ala Ser Ala Val Ala Gly Ala Gln Pro Ala  
 245 250 255

Pro Gly Gly Gly Pro Arg Pro Thr Pro Gly Pro Cys Arg Thr Arg  
 260 265 270

Phe Ser Gly Pro Ala Ser Ser Gly Gly Tyr Ser Val Gln Leu Asp Ala  
 275 280 285

Leu His Phe Pro Ala Phe Glu Asp Arg Ala Leu Thr Ala Met Met Ala  
 290 295 300

Gln Lys Asp Leu Ser Pro Ser Leu Pro Gly Gly Ile Leu Gln Pro Val  
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Gln Glu Asp Asn Ser Lys Thr Ser Pro Arg Ser His Arg Ser Asp Gly  
 325 330 335

Glu Phe Ser Pro His Ser His Tyr Ser Asp Ser Asp Glu Ala Ser  
 340 345 350

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 <213> Mus musculus

<400> 2

Met Ser Arg Leu Leu His Ala Glu Glu Trp Ala Glu Val Lys Glu Leu  
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Gly Asp His His Arg His Pro Gln Pro His His Val Pro Pro Leu Thr  
 20 25 30

Pro Gln Pro Pro Ala Thr Leu Gln Ala Arg Asp Leu Pro Val Tyr Pro  
 35 40 45

Ala Glu Leu Ser Leu Leu Asp Ser Thr Asp Pro Arg Ala Trp Leu Thr  
 50 55 60

Pro Thr Leu Gln Gly Leu Cys Thr Ala Arg Ala Ala Gln Tyr Leu Leu  
 65 70 75 80  
 His Ser Pro Glu Leu Gly Ala Ser Glu Ala Ala Ala Pro Arg Asp Glu  
 85 90 95  
 Ala Asp Ser Gln Gly Glu Leu Val Arg Arg Ser Gly Cys Gly Gly Leu  
 100 105 110  
 Ser Lys Ser Pro Gly Pro Val Lys Val Arg Glu Gln Leu Cys Lys Leu  
 115 120 125  
 Lys Gly Gly Val Val Val Asp Glu Leu Gly Cys Ser Arg Gln Arg Ala  
 130 135 140  
 Pro Ser Ser Lys Gln Val Asn Gly Val Gln Lys Gln Arg Arg Leu Ala  
 145 150 155 160  
 Ala Asn Ala Arg Glu Arg Arg Arg Met His Gly Leu Asn His Ala Phe  
 165 170 175  
 Asp Gln Leu Arg Asn Val Ile Pro Ser Phe Asn Asn Asp Lys Lys Leu  
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 Ser Lys Tyr Glu Thr Leu Gln Met Ala Gln Ile Tyr Ile Asn Ala Leu  
 195 200 205  
 Ser Glu Leu Leu Gln Thr Pro Asn Val Gly Glu Gln Pro Pro Pro Pro  
 210 215 220  
 Thr Ala Ser Cys Lys Asn Asp His His His Leu Arg Thr Ala Ser Ser  
 225 230 235 240  
 Tyr Glu Gly Gly Ala Gly Ala Ser Ala Val Ala Gly Ala Gln Pro Ala  
 245 250 255  
 Pro Gly Gly Gly Pro Arg Pro Thr Pro Pro Gly Pro Cys Arg Thr Arg  
 260 265 270  
 Phe Ser Gly Pro Ala Ser Ser Gly Gly Tyr Ser Val Gln Leu Asp Ala  
 275 280 285  
 Leu His Phe Pro Ala Phe Glu Asp Arg Ala Leu Thr Ala Met Met Ala  
 290 295 300  
 Gln Lys Asp Leu Ser Pro Ser Leu Pro Gly Gly Ile Leu Gln Pro Val  
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 Gln Glu Asp Asn Ser Lys Thr Ser Pro Arg Ser His Arg Ser Asp Gly  
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Glu Phe Ser Pro His Ser His Tyr Ser Asp Ser Asp Glu Ala Ser  
 340 345 350

<210> 3  
 <211> 354  
 <212> PRT  
 <213> Homo sapiens

<400> 3

Met Ser Arg Leu Leu His Ala Glu Glu Trp Ala Glu Val Lys Glu Leu  
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Gly Asp His His Arg Gln Pro Gln Pro His His Leu Pro Gln Pro Pro  
 20 25 30

Pro Pro Pro Gln Pro Pro Ala Thr Leu Gln Ala Arg Glu His Pro Val  
 35 40 45

Tyr Pro Pro Glu Leu Ser Leu Leu Asp Ser Thr Asp Pro Arg Ala Trp  
 50 55 60

Leu Ala Pro Thr Leu Gln Gly Ile Cys Thr Ala Arg Ala Ala Gln Tyr  
 65 70 75 80

Leu Leu His Ser Pro Glu Leu Gly Ala Ser Glu Ala Ala Ala Pro Arg  
 85 90 95

Asp Glu Val Asp Gly Arg Gly Glu Leu Val Arg Arg Ser Ser Gly Gly  
 100 105 110

Ala Ser Ser Ser Lys Ser Pro Gly Pro Val Lys Val Arg Glu Gln Leu  
 115 120 125

Cys Lys Leu Lys Gly Gly Val Val Val Asp Glu Leu Gly Cys Ser Arg  
 130 135 140

Gln Arg Ala Pro Ser Ser Lys Gln Val Asn Gly Val Gln Lys Gln Arg  
 145 150 155 160

Arg Leu Ala Ala Asn Ala Arg Glu Arg Arg Arg Met His Gly Leu Asn  
 165 170 175

His Ala Phe Asp Gln Leu Arg Asn Val Ile Pro Ser Phe Asn Asn Asp  
 180 185 190

Lys Lys Leu Ser Lys Tyr Glu Thr Leu Gln Met Ala Gln Ile Tyr Ile  
 195 200 205

Asn Ala Leu Ser Glu Leu Leu Gln Thr Pro Ser Gly Gly Glu Gln Pro  
 210 215 220

Pro Pro Pro Pro Ala Ser Cys Lys Ser Asp His His His Leu Arg Thr  
 225 230 235 240  
 Ala Ala Ser Tyr Glu Gly Gly Ala Gly Asn Ala Thr Ala Ala Gly Ala  
 245 250 255  
 Gln Gln Ala Ser Gly Gly Ser Gln Arg Pro Thr Pro Pro Gly Ser Cys  
 260 265 270  
 Arg Thr Arg Phe Ser Ala Pro Ala Ser Ala Gly Gly Tyr Ser Val Gln  
 275 280 285  
 Leu Asp Ala Leu His Phe Ser Thr Phe Glu Asp Ser Ala Leu Thr Ala  
 290 295 300  
 Met Met Ala Gln Lys Asn Leu Ser Pro Ser Leu Pro Gly Ser Ile Leu  
 305 310 315 320  
 Gln Pro Val Gln Glu Glu Asn Ser Lys Thr Ser Pro Arg Ser His Arg  
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 Ala Ser

<210> 4  
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 <213> Homo sapiens

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 Gly Asp His His Arg Gln Pro Gln Pro His His Leu Pro Gln Pro Pro  
 20 25 30  
 Pro Pro Pro Gln Pro Pro Ala Thr Leu Gln Ala Arg Glu His Pro Val  
 35 40 45  
 Tyr Pro Pro Glu Leu Ser Leu Leu Asp Ser Thr Asp Pro Arg Ala Trp  
 50 55 60  
 Leu Ala Pro Thr Leu Gln Gly Ile Cys Thr Ala Arg Ala Ala Gln Tyr  
 65 70 75 80  
 Leu Leu His Ser Pro Glu Leu Gly Ala Ser Glu Ala Ala Ala Pro Arg  
 85 90 95

Asp Glu Val Asp Gly Arg Gly Glu Leu Val Arg Arg Ser Ser Gly Gly  
 100 105 110  
 Ala Ser Ser Ser Lys Ser Pro Gly Pro Val Lys Val Arg Glu Gln Leu  
 115 120 125  
 Cys Lys Leu Lys Gly Gly Val Val Val Asp Glu Leu Gly Cys Ser Arg  
 130 135 140  
 Gln Arg Ala Pro Ser Ser Lys Gln Val Asn Gly Val Gln Lys Gln Arg  
 145 150 155 160  
 Arg Leu Ala Ala Asn Ala Arg Glu Arg Arg Arg Met His Gly Leu Asn  
 165 170 175  
 His Ala Phe Asp Gln Leu Arg Asn Val Ile Pro Ser Phe Asn Asn Asp  
 180 185 190  
 Lys Lys Leu Ser Lys Tyr Glu Thr Leu Gln Met Ala Gln Ile Tyr Ile  
 195 200 205  
 Asn Ala Leu Ser Glu Leu Leu Gln Thr Pro Ser Gly Gly Glu Gln Pro  
 210 215 220  
 Pro Pro Pro Pro Ala Ser Cys Lys Ser Asp His His His Leu Arg Thr  
 225 230 235 240  
 Ala Ala Ser Tyr Glu Gly Gly Ala Gly Asn Ala Thr Ala Ala Gly Ala  
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 Gln Gln Ala Ser Gly Gly Ser Gln Arg Pro Thr Pro Pro Gly Ser Cys  
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 Arg Thr Arg Phe Ser Ala Pro Ala Ser Ala Gly Gly Tyr Ser Val Gln  
 275 280 285  
 Leu Asp Ala Leu His Phe Ser Thr Phe Glu Asp Ser Ala Leu Thr Ala  
 290 295 300  
 Met Met Ala Gln Lys Asn Leu Ser Pro Ser Leu Pro Gly Ser Ile Leu  
 305 310 315 320  
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 Ala Ser

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Phe Asp Gln Leu Arg  
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